

AMENDMENTS TO THE CLAIMS

1-35. (Canceled)

36. (Currently Amended) A method for targeting a target polypeptide for ubiquitin-dependent proteolysis in a eukaryotic cell, comprising:

providing a eukaryotic cell comprising a hybrid polypeptide that comprises (i) an F-box consisting of an amino acid sequence that is encoded by ~~a nucleotide sequence that is at least 90% identical to the nucleotide sequence in SEQ ID NO: 3 that encodes amino acids 148-192 of SEQ ID NO: 4 or to the nucleotide sequence in SEQ ID NOs: 1, 5, 7, 9 or 11 that encodes the F-box in SEQ ID NOs: 2, 6, 8, 10 or 12, respectively~~ a functional homolog or portion thereof, and (ii) a target polypeptide interaction domain that binds to the target polypeptide, wherein the F-box recruits the hybrid polypeptide to a Skp1/Cul 1/F-box protein (SCF) ubiquitin ligase complex, thereby targeting the target polypeptide for ubiquitin-dependent proteolysis in the eukaryotic cell.

37-38. (Canceled)

39. (Previously Presented) The method of claim 36, wherein said ubiquitin-dependent proteolysis is by the proteasome.

40-45. (Canceled)

46. (Previously Presented) The method of claim 36, wherein the target polypeptide is targeted for proteolysis in vitro.

47. (Previously Presented) The method of claim 36, wherein the eukaryotic cell is a yeast cell.

48. (Previously presented) The method of claim 36, wherein the target polypeptide interaction domain is selected from the group consisting of a papillomavirus E7 polypeptide, and an SV40 LTP polypeptide.

49. (Previously presented) The method of claim 36, wherein the target polypeptide is selected from the group consisting of a retinoblastoma polypeptide, a p107 polypeptide, IκB, Sic1p, Cln2p, E2 or beta- catenin.

50-60. (Canceled)

61. (Currently Amended) The method of claim ~~58-36~~, further comprising a WD domain consisting essentially of an amino acid sequence selected from the group consisting of

amino acids 260-293 of SEQ ID NO: 4; amino acids 305-333 of SEQ ID NO: 4; amino acids 345-373 of SEQ ID NO: 4; amino acids 388-416 of SEQ ID NO: 4; amino acids 428-456 of SEQ ID NO: 4; amino acids 468-497 of SEQ ID NO: 4 and amino acids 518-546 of SEQ ID NO: 4.

62. **(Previously presented)** The method of claim 36, wherein the eukaryotic cell is a mammalian cell.

63. **(Previously presented)** The method of claim 62, wherein the mammalian cell is a human cell.

64. **(Currently Amended)** The method of claim ~~58~~ 62, wherein the cell is a human cell.

65. **(Currently Amended)** A method for targeting a target polypeptide for ubiquitin-dependent proteolysis in a eukaryotic cell, comprising:

providing a eukaryotic cell comprising a hybrid polypeptide that comprises (i) a peptide that is encoded by ~~a nucleotide sequence that is at least 90% identical to the nucleotide sequence set forth in any one of SEQ ID NOs: 1, 3, 5, 7, 9 and 11~~ 3 or functional homolog or portion thereof, and (ii) a target polypeptide interaction domain that binds to the target polypeptide, wherein the peptide recruits the hybrid polypeptide to an SCF ubiquitin ligase complex, thereby targeting the target polypeptide for ubiquitin-dependent proteolysis in the eukaryotic cell.

66-70. **(Canceled)**